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S.N. 10/642,539

AMENDMENTS TO THE CLAIMS

Please amend the claims as shown below:

1 (Currently Amended). A method of forming an oscillator comprising:

forming ~~an~~ a saw-tooth oscillator having a delay including forming the saw-tooth oscillator to generate a frequency; and forming the saw-tooth oscillator to generate the delay so that changing the frequency generates an inversely proportional change in the delay.

2 (Currently Amended). The method of claim 1 wherein forming the saw-tooth oscillator to generate the delay so that changing the frequency generates the inversely proportional change in the delay includes forming the saw-tooth oscillator to generate the inversely proportional change in the delay within elements of a feedback path of the saw-tooth oscillator.

3 (Currently Amended). The method of claim 2 wherein forming the saw-tooth oscillator to generate the inversely proportional change in the delay within elements of the feedback path of the saw-tooth oscillator includes forming the saw-tooth oscillator to generate a bias current of the elements of the feedback path.

4 (Currently Amended). The method of claim 3 wherein forming the saw-tooth oscillator to generate the bias current of the elements of the feedback path includes generating the bias current so that changing the frequency generates a proportional change in the bias current.

5 (Cancelled).

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6 (Currently Amended). The method of claim 1 wherein forming the saw-tooth oscillator to generate the delay so that changing the frequency generates the inversely proportional change in the delay includes forming a multiple saw-tooth oscillator to generate the delay.

7 (Currently Amended). The method of claim 1 wherein forming the saw-tooth oscillator having the delay includes coupling a comparator in a feedback path of the saw-tooth oscillator.

8 (Currently Amended). The method of claim 7 wherein coupling the comparator in the feedback path of the saw-tooth oscillator includes forming the saw-tooth oscillator to generate the delay within the comparator.

9 (Currently Amended). The method of claim 7 wherein coupling the comparator in the feedback path of the saw-tooth oscillator includes forming a bias generator of the comparator to generate a bias current of the comparator so that changing the frequency generates a proportional change in the bias current.

10 (Currently Amended). A method of operating an oscillator comprising:

generating an oscillating signal having a frequency at an output of an oscillator; and

generating a delay of the oscillator so that changes in the frequency generate an inversely proportional change in the delay including generating a delay of a comparator that is in a feedback path of the oscillator.

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11 (Currently Amended). The method of claim 10 wherein generating the delay of the oscillator so that changes in the frequency generate the inversely proportional change in the delay includes generating a bias current of elements in a the feedback path of the oscillator including generating the bias current proportional to a bias current used to establish the frequency.

12 (Currently Amended). The method of claim 10 wherein generating the delay of the oscillator so that changes in the frequency generate the inversely proportional change in the delay includes changing a bias current of elements in a the feedback path of the oscillator including changing the bias current proportionally to changes in the frequency.

13 (Original). The method of claim 10 wherein generating the oscillating signal having the frequency at the output of the oscillator includes using a saw-tooth oscillator to generate the oscillating signal.

14 (Cancelled).

15 (Currently Amended). The method of claim ~~14~~ 10 wherein generating the delay of the comparator includes biasing the comparator with a bias current that is used to establish the frequency.

16 (Original). The method of claim 15 wherein biasing the comparator with the bias current that is used to establish the frequency includes changing the bias current to change the frequency and the delay.

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17 (Currently Amended). An oscillator comprising:
an output for generating an on oscillating signal;
a feedback path for receiving the oscillating signal, the
feedback path having an active element that has a delay including
the feedback path having a comparator coupled to receive the
oscillating signal; and

a bias generator coupled to provide a bias current to the
active element, and coupled to receive a frequency control signal
and responsively generate the bias current.

18 (Cancelled).

19 (Currently Amended). The oscillator of claim ~~18~~ 17
wherein the bias generator coupled to provide the bias current
includes the bias generator coupled to generate the bias current
responsively to a value of a resistor.

20 (Currently Amended). The oscillator of claim ~~18~~ 17
wherein the bias generator coupled to provide the bias current
includes the bias generator coupled to provide a current of a
current source of the comparator.

21 (New). The method of claim 1 wherein forming the saw-
tooth oscillator to generate the delay so that changing the
frequency generates the inversely proportional change in the
delay includes forming the saw-tooth oscillator to generate the
delay so that changing a value of a resistor changes the
frequency.

22 (New). The method of claim 10 further including
controlling a state of a latch with an output of the comparator.